2000 REPORT ON IPM DEMONSTRATION AND IMPLMENTATION PLAN FOR CHRISTMAS TREE GROWERS

Co-Leaders: Stephanie Mallozzi, Extension Educator CCE – Dutchess County and Gary Couch, Cornell Ornamentals IPM Specialist – Hudson Valley.

Cooperators: George Hudler, Plant Pathology Professor, Cornell University, Karen Snover, Director, Cornell Plant Pathology Diagnostic Laboratory.

Background & Justification: The Christmas Tree Industry in Dutchess County is a strong and growing industry. Total value of the industry in Dutchess County is estimated to be in excess of $5,000,000. There are approximately 30 Christmas Tree growers in Dutchess County with a total of about 500 acres. Farms vary in size from five acres to 40 acres per farm. About 25% are full time growers, and 75% are part-time growers. Approximately 50% of the growers also grow other crops (i.e. roadside vegetables, greenhouse bedding plants, nursery stock, etc.). Christmas tree growers who incorporate IPM into their everyday growing regime not only promote environmental stewardship, they also increase profitability by reducing the amount of money spent on pesticides. Dutchess County has become a suburban county. Growers are constantly faced with challenges when it comes to pest management and public perception of these practices. In 1998 several growers approached Cornell Cooperative Extension Dutchess County and requested assistance to develop an IPM program. The program was funded through the NYS IPM Program and initiated in 1999. We received a request from an Orange County grower to participate in the 2000 program. As environmental and growing conditions differ regionally throughout New York State, growers need information that is relevant to the Hudson Valley. Much of the information and practices developed carry over to the ornamental horticulture industry, specifically the nursery and landscape contracting sector. With increased public awareness of commercial pesticide use, expanding IPM practices in Christmas Tree production

Objectives, Activities and Results:

1) Continue to work with growers who participated in 1999 and recruit up to five new growers through existing relationship with Hudson Valley Christmas Tree Growers Association.

Though four out of five 1999 participants indicated they would continue in the program in 2000, only two actually did. One new grower from Orange County grower was added to the program in 2000. A total of 23 acres were enrolled in the program. This represents 60% of the acreage scouted last year.

Grower participation fees remained the same in 2000. Growers were charged $250.00 for the first five acres and an additional $40.00 per acre beyond five acres.

2) Continue to acquire, adapt and fine tune materials and protocols from existing and former Christmas Tree IPM programs.

A resource package was assembled and distributed to participants of two IPM twilight workshops.

3) Continue to determine the Key Pests and Pesticide Usage patterns of area growers in order to focus research efforts and measure impact. Compare '99's data with '00's data.

One grower experienced a noticeable reduction of eastern spruce gall adelgid. From a 20% infestation level in 1999, no measurable infestation was observed in 2000 after following our management suggestions. See Figure 1.

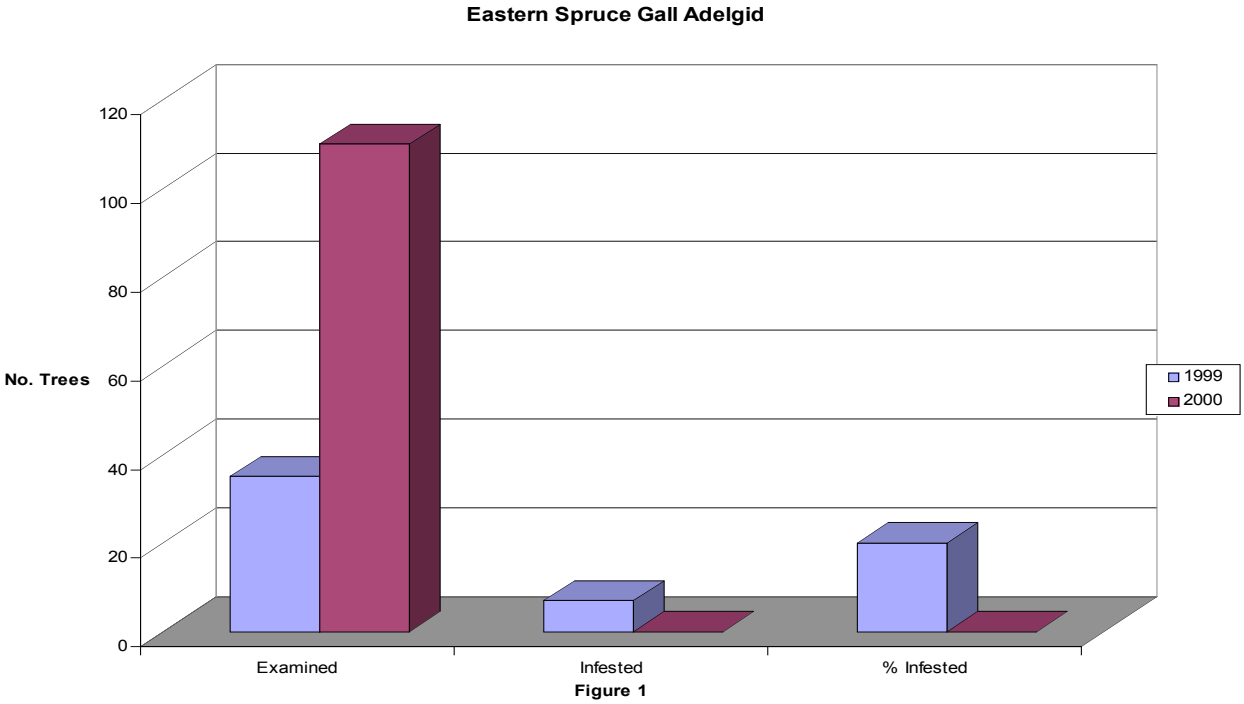

Figure 1

4) Continue to gather baseline economic loss and pest management cost information to enhance impact evaluation.

One of the growers has instituted a tracking program to assess profitability. We expect to receive good economic data as a result of this program.

5) Continue to educate growers through direct contact, workshops, presentations, newsletters, and other appropriate media.

Two twilight grower meetings were held this year. A total of 13 growers learned about pest identification and management through hands on demonstrations. Several growers expressed interest in the IPM scouting and monitoring program.

Three local newsletters were distributed to growers.

6) Continue to explore the usefulness of low-resolution digital imagery in the diagnostic process.

Though several diagnostic samples were sent to Cornell's Plant Pathology Lab, digital images were used for promotional purposes only this year. The incidence of unusual disease symptoms or insect presence was not evident this year.

Summary and Discussion:

While the growers that did participate in 2000 expressed their appreciation for the program and indicated their intention to participate in 2001, more growers need to be brought into the program. We intend to survey growers in early January to assess interest and promote participation in 2001. If necessary, individual site visits to growers will take place.

The two years of information we have gathered through this program is forming the basis for a locally relevant pest management model.

Extreme weather patterns in the past two seasons likely distorted pest and pest management activities. Data needs to be collected for several more seasons to accurately represent average growing conditions.

Grower evaluations indicated and our data supports that weed management is the most labor and pesticide intensive pest management activity. We intend to focus more effort towards alternative weed management in the future.

One aspect of IPM that attracted growers to the program is the public image of being environmentally responsible. One grower went as far as advertising his participation in the program in his annual marketing newsletter sent to over 300 customers.

"This year, Pine View Farm was one of three area Christmas tree farms to participate in an integrated pest management (IPM) program sponsored by Cornell Cooperative Extension. The program included weekly site visits to scout for insect problems. As with other crops, Christmas trees are prone to a variety of insect, disease and fungal problems. The IPM program helped us with insect identification and control strategies. Our thanks to Cornell for the fine program."

Bill Steidle
Pine View Farm

Following the North Carolina State model, we intend to investigate consumer marketing of IPM in order to provide increased incentive for growers to participate.

The hands-on workshops were very well received. It also provided a forum for local growers to network, discuss common issues, and exchange information. We hope to continue these and other educational efforts.

While still small, the Christmas tree IPM project has become an integral part of the commercial horticulture education program in the Hudson Valley and we believe that it has excellent growth potential.